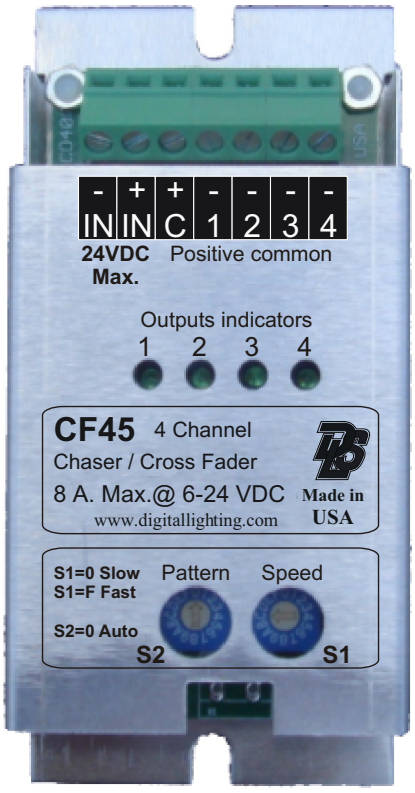
Digital Lighting Systems, Inc.

www.digitallighting.com

CF45

Three or Four Channel Chaser / Fader

8 amps max total load @ 6 - 24 VDC



USER'S MANUAL

CF45- UM
01-2011

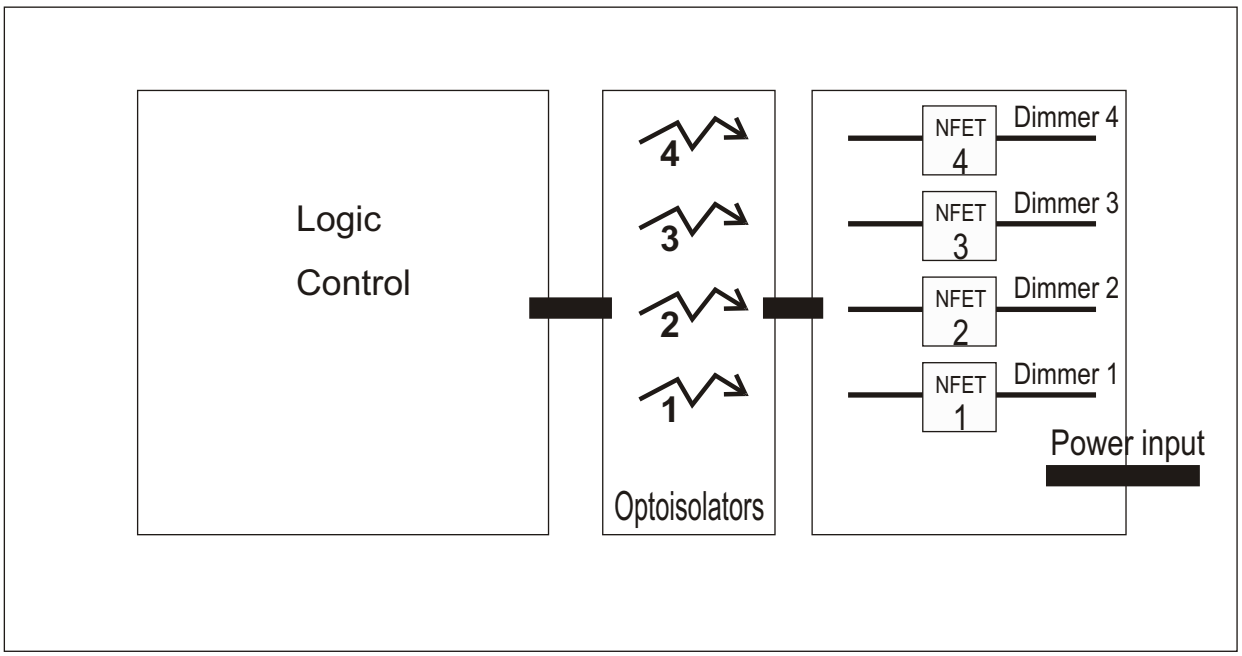
CF45 is a **CF400** module installed in an aluminum enclosure.

General Description

The **CF400** is a user selectable three or four-channel VDC lighting controller (Cross-Fader /chaser / Lighting animation) capable of producing slow level changes(Color Mixing) as well as Quick ON/ OFF (Animation)

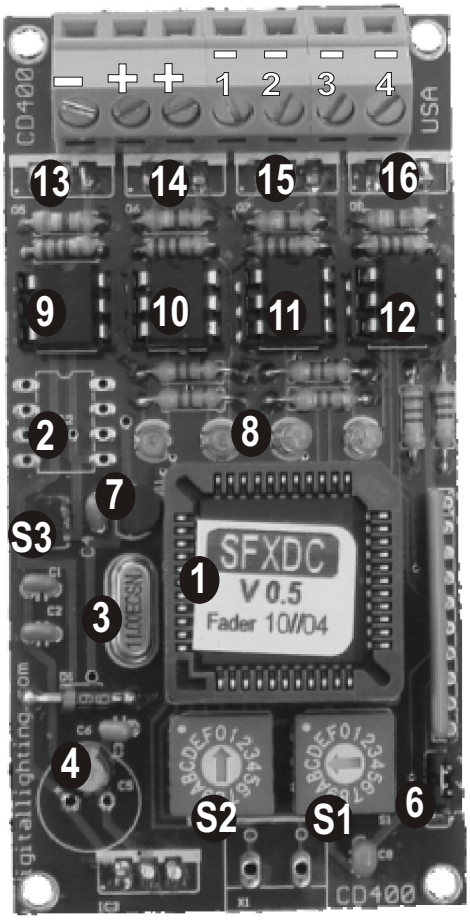
A functional block diagram of the **CF400** is shown in Figure 1. **CF400** contains the equivalent of four solid-state relays (**SSR**) 4 dimmers, with one power line feed. Each dimmer is rated at a maximum output current of 5 Amperes.(Total current on all 4 loads not to exceed 8 Amps.). The **SSR** dimmers are controlled by low-voltage DC signals from the logic circuit on the board. These signals are electrically isolated by Optical couplers from all output elements. The **CF400** logic board contains a microprocessor programmed to generate 15 user-selectable light sequences or patterns at an adjustable rate (the **CF400** is also available with a "SPELLER" pattern or custom patterns upon request). A rotary selector is used to select the pattern and a second one is used to set the rate or speed. Patterns and speed can be monitored by four LED's that represent the outputs of the **CF400**.

Figure 1 - CF400 block diagram:



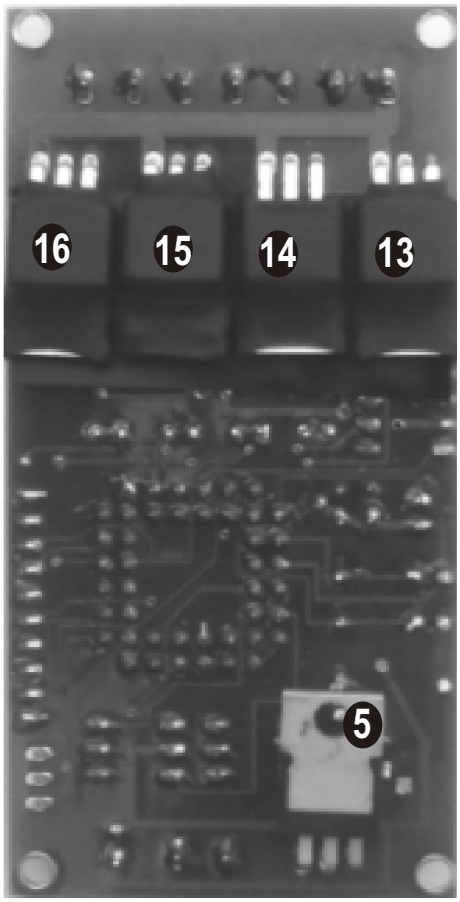
12302 SW 128 Ct. Miami, FL 33186 Tel: 305-969-8442 Fax: 305-969-8675
Copyright © 2011 Digital Lighting Systems, All rights Reserved • Specifications are subject to change without notice. • *Printed* in U.S.A.

CF400 Module Detail



FRONT

Figure 2 - CF400 Detail



BACK

Table 1 - OUTPUT Terminals Definition

NAME	DESCRIPTION
1	Output Of Solid-State Relay #1
2	Output Of Solid-State Relay #2
3	Output Of Solid-State Relay #3
4	Output Of Solid-State Relay #4-
IN -	Negative Feed For Relays 1 , 2 , 3 & 4.
IN +	Positive Feed For Relays 1 , 2 , 3 & 4.
C +	Common positive

Table 2 - Maximum Electrical Ratings

Electrical Characteristic	Terminal	Maximum
Load Current	**1 to 4**	**5Amps.Max**
Input Current	**DC**	**8 Amps.Max**
Input Voltage	**H**	**6-24 VDC**

Table 3 - CF400 Circuit Legend

1	Microprocessor.
2	Communications Chip.
3	Quartz Crystal.
4	Power Supply Capacitor.
5	Voltage Regulator.
6	3,4 channel jumper
7	Auto reset +/- 5%
8	Output LED Monitors.
9,10,11,12	Optical Couplers # 1,2,3,4
13,14,15,16	Mosfets # 1,2,3,4

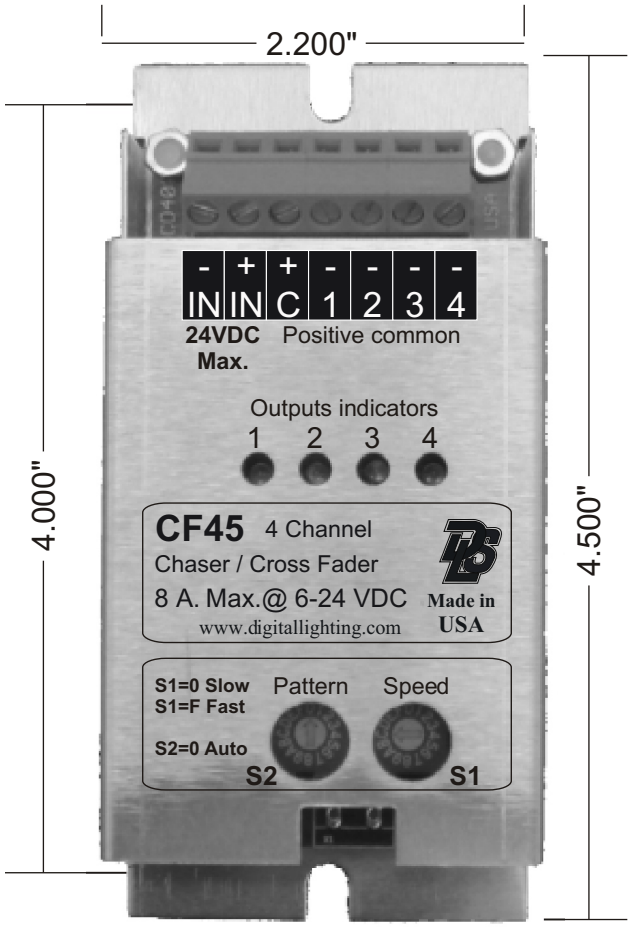
S1	**Rate / speed selector**
S2	**Pattern selector**
S3	**chaser / fader jumper**

12302 SW 128 Ct. Miami, FL 33186 Tel: 305-969-8442 Fax: 305-969-8675

Copyright © 2011 Digital Lighting Systems, All rights Reserved ● Specifications are subject to change without notice. ● *Printed* in U.S.A.

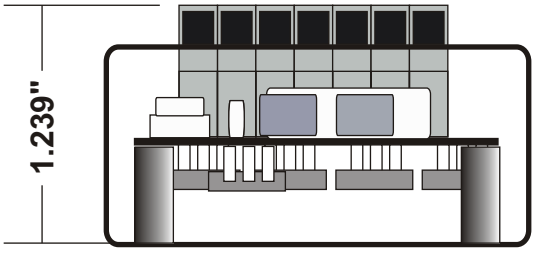
Mechanical Installation

The **CF45 Pack** is designed to be surface mounted



Dimensions: 4.50” x 2.20” x 1.00”

Mounting Holes 4.00 inch on center

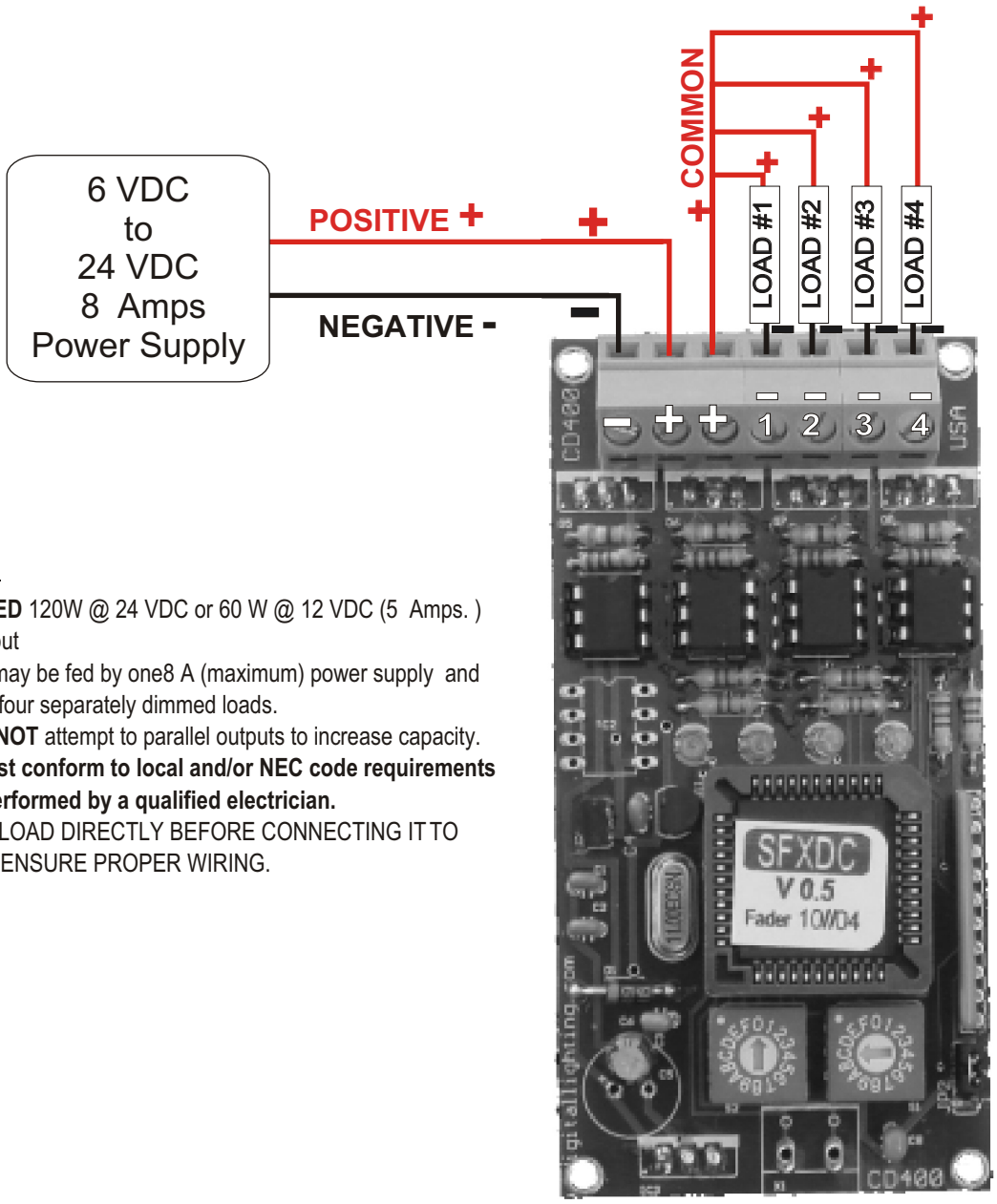


Elevation

Figure 3 - CF45 Dimensional Diagram

Copyright © 2011 Digital Lighting Systems, All rights Reserved ● Specifications are subject to change without notice. ● *Printed* in U.S.A.

Figure4 - CF45 GENERAL WIRING INSTRUCTIONS:



Wiring Notes

- **DO NOT EXCEED** 120W @ 24 VDC or 60 W @ 12 VDC (5 Amps.) per dimmer output
- **Cf45** Modules may be fed by one8 A (maximum) power supply and may have up to four separately dimmed loads.
- **CAUTION: DO NOT** attempt to parallel outputs to increase capacity.
- **Installation must conform to local and/or NEC code requirements and must be performed by a qualified electrician.**
- POWER EACH LOAD DIRECTLY BEFORE CONNECTING IT TO THE **CF400** TO ENSURE PROPER WIRING.

NOTES

1 Follow Power supply installation & wiring instructions from manufacturer.
2 Maximum Load Per Output: 5 Amps.
3 Maximum total loads on four outputs : 8 Amps.

12302 SW 128 Ct. Miami, FL 33186 Tel: 305-969-8442 Fax: 305-969-8675
Copyright © 2011 Digital Lighting Systems, All rights Reserved● Specifications are subject to change without notice. ● *Printed* in U.S.A.

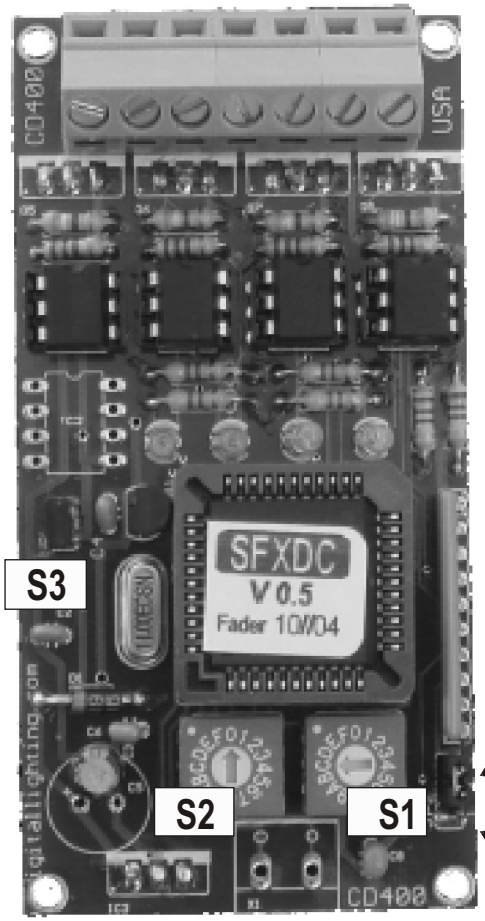
Figure 5 - CF45 Address and 3 or 4 channel Selection.

Open cover to access to jumper (S3)

Jumper (**S3**)
When **S3** Jumper is Installed
The unit is a chaser with instant 0 to 100% steps.

When **S3** Jumper is Removed
The unit is a fader with slow 0 to 100 % level change

Unit is shipped
with **S3** Installed.



Croos fade/ chase jumper

3 or 4 channel selector

4 channel

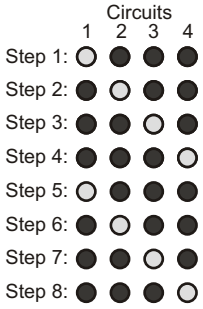
3 channel

BEFORE ENERGIZING THE CF400 MAKE SURE:
Loads are tested before connecting to dimmers.

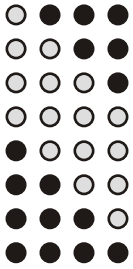
Copyright © 2011 Digital Lighting Systems, All rights Reserved • Specifications are subject to change without notice. • *Printed* in U.S.A.

Patterns for CF400

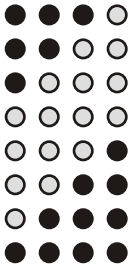
1 Light Fade



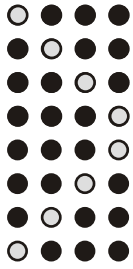
2 Fill & Swipe Forward



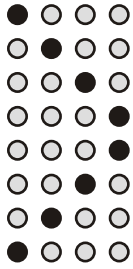
3 Fill & Swipe Back



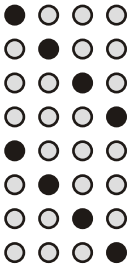
4 Light Bounce



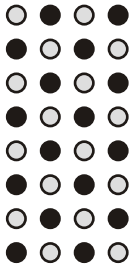
5 Dark Bounce



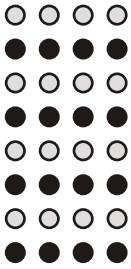
6 Dark Fade



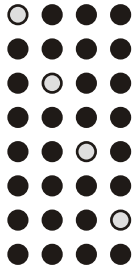
7 Flip-Flop



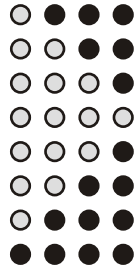
8 Flash All



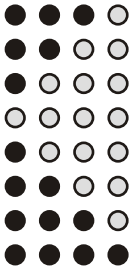
9 Flash Light Fade



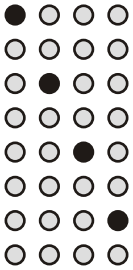
A Spring Forward



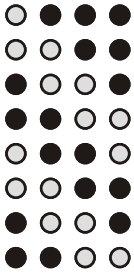
B Spring Back



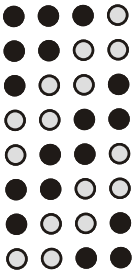
C Flash Dark Fade



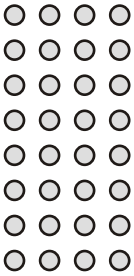
D Crawl Forward



E Crawl Back



F All On



0 = Auto Cycle
Patterns 1-F
4 x each
then repeat

KEY: ○ Lights ON
● Lights OFF

CF45 could be ordered with user specified custom patterns (8 step patterns) for a one time fee.

12302 SW 128 Ct. Miami, FL 33186 Tel: 305-969-8442 Fax: 305-969-8675
Copyright © 2011 Digital Lighting Systems, All rights Reserved● Specifications are subject to change without notice. ● *Printed* in U.S.A.

LIMITED WARRANTY

Digital Lighting Systems, warrants to the purchaser that its products have been carefully manufactured and inspected and are warranted to be free from defects of workmanship and materials when used as intended. Any abuse or misuse contrary to normal operation shall void this warranty.

Digital Lighting Systems' obligation under this warranty shall be limited to replacement or repair of any units as shall within two years of date of invoice from **Digital Lighting Systems**, prove defective; and **Digital Lighting Systems** shall not be liable for any other damages, whether direct or consequential. **The implied warranties of merchantability and fitness for a particular purpose are limited to the duration of the expressed warranty**. Some states do not allow the exclusion of the limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, you may also have other legal rights which vary from state to state.

Defective merchandise may be returned to **Digital Lighting Systems**, prepaid, after prior notification has been given and approval obtained for the return. To obtain prior approval for the return of the defective items, contact your local Digital Lighting Systems distributor, representative, or:

Digital Lighting Systems, Inc.

Attn: Customer Service Department
12302 SW 128 Ct.
Miami, FL 33186
(305) 969-8442

Upon request, replacement unit(s) will be shipped as soon as available. Unless immediate shipment of replacement merchandise is requested, **Digital Lighting Systems** will not ship replacement merchandise until defective merchandise is received, inspected, and determined to be defective.

No labor charges in connection with warranty problems will be reimbursed by Digital Lighting Systems without prior written approval from the factory.

Digital Lighting Systems distributors and representatives have no authority to change this warranty without written permission.

Digital Lighting Systems reserves the right to determine the best method of correcting warranty problems.

Digital Lighting Systems, Inc.
12302 SW 128 Ct.
Miami, FL 33186
www.digitallighting.com

Tel 305-969-8442
Fax 305-969-8675
e-m info@digitallighting.com

Printed in U.S.A.01/2011